

CLAIMS

- 1 A combustor for a gas turbine engine comprising a combustion chamber wall having formed therein at least one hole for admitting air into the combustion chamber;

 at least one air intake chute aligned with said hole;

 during operation a hoop stress field having regions of high and low stress concentration around said hole;

 wherein said chute is attached to the combustor wall in a region of low stress concentration.
- 2 A combustor as claimed in claim 1 wherein the chute is attached to the combustor wall in at least two regions of low stress concentration.
- 3 A combustor as claimed in claim 2 wherein areas where the chute is attached to the combustor wall are substantially in the same radial plane.
- 4 A combustor as claimed in claim 2 wherein the areas of attachment are provided on diametrically opposite sides of said chute.
- 5 A combustor as claimed in claim 1 wherein the combustor air intake chute is provided with a flange disposed around one end thereof.
- 6 A combustor as claimed in claim 5 wherein the flange is circular.
- 7 A combustor as claimed in claim 5 wherein at least one tab projects from the outer edge of said flange.

- 8 A combustor as claimed in claim 7 wherein the at least one tab is attached to the combustor wall.
- 9 A combustor as claimed in claim 7 wherein the at least one tab projects from the edge of the flange up to about $0.14 \times$ (flange diameter).
- 10 A combustor as claimed in claim 7 wherein the at least one tab has a length of up to about $0.25 \times$ (flange diameter) of the diameter of the flange.
- 11 A method of manufacturing a combustor as described in claim 1 comprising the step of aligning the areas where the chute is attached to the combustor with the operational hoop stress field in the combustor wall.
- 12 A method of manufacturing a combustor as described in claim 8 comprising the step of aligning the areas where the chute is attached to the combustor with the operational hoop stress field in the combustor wall.
- 13 A method as claimed in claim 11 wherein the areas where the chute is attached to the combustor wall are orientated such that they are in the same radial plane.
- 14 A method as claimed in claim 12 wherein the areas where the chute is attached to the combustor wall are orientated such that they are in the same radial plane.
- 15 Use of a combustor as claimed in claim 1.